



**INVASIVE SPECIES OUTREACH & EDUCATION IN MAUI COUNTY  
HAWAI'I INVASIVE SPECIES COUNCIL  
FINAL REPORT – FY17**



*Makawao 4<sup>th</sup> of July parade*

## **INTRODUCTION & OVERVIEW**

Public awareness and concern inspire people to report new or suspect plants and animals, help secure access to private property, and generate support for invasive species work and funding. MISC and MoMISC have developed robust programs to educate and engage the public about invasive species issues. HISC funding for this project sought to reach a broader range of stakeholders, including those likely to move or detect species moving interisland, and to retain highly trained outreach and education staff. These objectives were fully met.

Staff on Maui and Molokai used a broad array of strategies and approaches to educate and engage the public, including: production and dissemination of printed materials; broadcast media; public events and presentations; classroom visits and teacher trainings; and workshops for targeted stakeholders. Outreach efforts worked to maintain and build positive relationships with local, state and federal elected officials. Staff participated in statewide outreach processes, including efforts to enhance statewide coordination, expand stakeholder engagement, and ensure that efforts are culturally inclusive. Specific activities helped to build awareness about the threat posed by little fire ants (LFA) and rat lungworm disease.



Overall, outreach and education activities had significant reach into local communities:

- Print media: more than 22,000 readers
- Radio and television broadcasts: more than 100,000 listeners/viewers
- Websites: 5 websites and two social media outlets had 71,318 hits
- Public events: 12 events, including interactions with 1,614 people
- Presentations: 18 presentations with a combined audience of 1,329 people
- Classroom visits/lessons: 9 schools and 2,334 students
- Internships: hosted five different interns

**PRINT MEDIA**

**Deliverables:** Publish 12 monthly articles in the *Maui News*; 5 other mentions; articles in The Nature Conservancy’s *Newsflash*.

**Accomplishments:** A total of 29 articles, letters to the editor, and announcements related to invasive species activities or events were printed in local papers and newsletters, including articles in The Nature Conservancy’s *Newsflash*, and 12 monthly articles in the *Maui News*. News included articles about little fire ants and rat lungworm disease; coqui frogs, with a focus on Māliko area residents; and events recognizing community efforts on invasive species. MISC also produced online newsletters and email blasts reaching at least 500 people.

The 12 monthly Kia’i Moku columns, written by MISC’s PR Specialist, covered: the value of invasive species management; invasive plant introductions; feral cats; drones; African tulip trees on East Maui; rabbits; predatory ants; anchialine pools; invasive jellyfish on Molokai; hurricanes; the Mamalu Poepoe project; and Africanized honeybees.



**BROADCAST MEDIA**

**Deliverables:** Produce 2 LFA Public Service Announcements (PSAs).

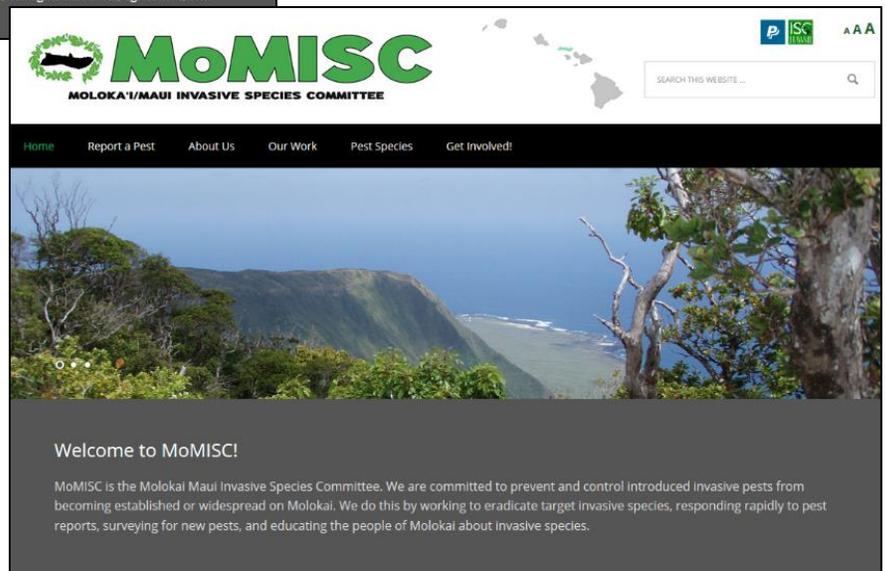
**Accomplishments:** Outreach efforts included both statewide and local television stations and local radio stations. MISC worked closely with the Department of Health, UH-CTAHR, Mayor’s Office, and others to inform the public about rat lungworm. Several public meetings were held throughout Maui County and MISC assisted with development of advertising (fliers, television adds, etc.) for rat lungworm informational meetings. Hawai’i News Now also picked up stories

about coqui frogs on Maui. Little fire ant was covered by Hawai'i Public Radio and as part of the statewide "Stop the Ant" LFA awareness campaign.

### WEBSITES

**Deliverables:** Maintain and update websites and social media platforms; estimated number of "hits" - 15,000.

**Accomplishments:** MISC and MoMISC maintained seven different Internet sites: primary websites for MISC and MoMISC ([www.mauiinvasive.org](http://www.mauiinvasive.org) and [www.molokaiisc.org](http://www.molokaiisc.org)); sites dedicated to little fire ants ([www.lfa-hawaii.org](http://www.lfa-hawaii.org)) and to the coqui-free nursery program ([www.coquifreemaui.org](http://www.coquifreemaui.org)); Facebook and YouTube pages; and the Hō'ike o Haleakalā curriculum ([www.hoikecurriculum.org](http://www.hoikecurriculum.org)). Total hits for these websites was 71,318.



### ***OUTREACH EVENTS***

**Deliverables:** Displays at 2-5 community events; reach estimated 2,000 people.

**Accomplishments:** MISC and MoMISC participated in 12 events, including: the Maui County Agricultural Festival; East Maui Taro Festival; Ha'ikū Ho'olaule'a; Maui Association of Landscape Professionals Lawn & Garden Fair; Maui County Fair; Arbor Day; Upcountry Farmers Market and Fair; and Molokai Earth Day. MISC recognized the Ha'ikū Hill community as the "Most Valuable Player" at the annual Hawai'i Invasive Species Awareness Week ceremony for their collective efforts to control coqui frogs. MoMISC maintained display boards with invasive species information at the Molokai Airport, Kaunakakai Harbor, and posted flyers at four post offices on the island. In total, these events reached at least 1,614 people.

### ***PRESENTATIONS & WORKSHOPS***

**Deliverables:** Give 3-5 presentations on invasive species topics; reach estimated 200 people.

**Accomplishments:** MISC staff participated in the annual Landscape Industry Council of Hawai'i meeting. Staff also presented at the Western Society of Weed Science annual meeting on miconia control efforts and served on the statewide and local ROD Working Groups. A workshop on the utility of mobile devices for navigation and collection was facilitated at the Pacific Islands Forestry Professionals meeting on Guam.

Eighteen presentations were given to diverse stakeholder groups, including: educators; landscapers; arborists; farmers; gardeners; community service organizations; tourism officials; Hawaiian environmental rights practitioners; and community associations. Topics included: general invasive species awareness; little fire ants; coqui frogs; early detection techniques; plant health; cultural issues; and the importance of public cooperation. Molokai staff also participated in the 'Aha Moku Advisory Council, which enhances the opportunity to ensure that traditional knowledge and cultural perspectives are incorporated into outreach messaging and events. Overall, these presentations reached an estimated 1,329 people.

MISC staff continued to collaborate in the Maui Mauka Conservation Awareness Training for nature-based tour operators. This is a joint project with East Maui Watershed Partnership and Maui Forest Bird Recovery Project, which provides early detection and communication tools for tour guides about East Maui species, environments and threats. The project held four trainings for a total of 72 participants.



**EDUCATIONAL MATERIALS**

**Deliverables:** Promote curriculum to local teachers and schools.

**Accomplishments:** MISC held a workshop for the Hawai’i Department of Transportation and assisted with development of informational materials for them. Sixty-four individuals participated in the workshop. A two-day workshop on utilizing the Hō’ike o Haleakalā curriculum was held for local teachers. A presentation to the Hawai’i Environmental Education Alliance was conducted. Invasive species units are online at [www.hoikecurriculum.org](http://www.hoikecurriculum.org): From Evolution in Isolation to Globalization; Invasive Species Impacts: Why Care; and Biology and Ecology. A total of 16 different classroom activities are available. Some examples include: weed risk assessment bingo, and a strategy exercise using data on the wiliwili gall wasp invasion and Google Earth.

**EDUCATIONAL PROGRAMS**

**Deliverables:** Conduct estimated 15 school-based activities; visit 6 different schools; reach estimated 1,000 students; conduct 1-2 teacher trainings based on the Hō’ike o Haleakalā curriculum.

**Accomplishments:** Staff conducted activities during 33 classroom visits or outdoor field trips with students from 9 different schools across the islands. Lessons used materials from the Hō’ike o Haleakalā curriculum, including testing new ones from the invasive species module. Other materials used included MISC videos and games (e.g., “Ecosystem Jenga”); working with students to develop an invasive species reporting App; and staffing tables at leadership and career opportunity days. In total, MISC shared invasive species messages with 2,334 students from across the Maui and Molokai.

## **LANDSCAPE INDUSTRY**

**Deliverables:** Present annual Mālama i ka ‘Āina award; support Weed Risk Assessment (WRA) technician.

**Accomplishments:** In partnership with Maui Association of Landscape Professionals (MALP) and the County of Maui, MISC recognizes a local community member with the annual Mālama i ka ‘Āina award. The Mālama i ka ‘Āina Award is presented annually to a landscaper, plant provider (retail and wholesale nurseries and garden shops), or commercial/agricultural property owner/manager to recognize their efforts to keep invasive species out of Maui County. The co-founders of “Plant-a-Wish,” a Maui-based native tree planting and stewardship project were the recipients of the 2017 award. Their mission is to encourage people to plant trees indigenous to the places they live, and in doing so bring communities together.



*2017 Mālama i ka ‘Āina Award*

Outreach staff continued to participate on the MALP board; engage with the Landscape Industry Council of Hawai‘i; and Maui County Farm Bureau. MISC provided office space for and supervised WRA and Biodiversity Information Network (HBIN) staff; this arrangement enhanced communication among the different projects about public inquiries and reports on invasive species. The Weed Risk Assessment technician also served as a local botanical expert, assisting with identification of unknown plants, and head of the Maui rapid ‘ōhi‘a death working group.

### ***VOLUNTEERS RECRUITED***

**Deliverables:** Lead at least two volunteer field trips; host at least two interns.

**Accomplishments:** MISC led one service outing to control miconia with local students and another to control coqui frogs. A third group hiked through the Waikamoi Preserve.

MISC supervised two interns from Kamehameha Schools, two AmeriCorps interns, and one intern with the Nā Hua Ho'ohuli I Ka Pono internship program. The Nā Hua Ho'ohuli I Ka Pono internship program is a program designed to cultivate the next generation of conservation leaders. It is through Kupu and is supported by the Hau'oli Mau Loa Foundation.



*Searching for coqui frogs during a volunteer field trip*

### ***PEOPLE REACHED***

**Deliverables:** Reach estimated 24,000 people via print and broadcast media, school activities and community events.

**Accomplishments:** Reached estimated 198,595 people. This estimate certainly includes some duplication; the same individual might have seen a video, heard a radio piece, read a newspaper article, or visited a webpage multiple times. However, other components of the MISC and MoMISC outreach and education program are seriously undercounted. Additionally, field staff interact with thousands of residents and visitors each year, sharing invasive species

messages and materials when they are in the community conducting survey and control operations.

An island-based, comprehensive, multi-media strategy, tailored for different ages, cultures, and interests, remains critical to ensuring that the most effective messages reach all segments of communities on Maui and Molokai.